

MALEVSKIY, Yuzef Boleslavovich; VASIL'YEV, Valentin Grigor'yevich;  
GRABIN, Vladimir Fedorovich; NERODENKO, M.M., inzh.,  
otv. red.; POGORETSKAYA, L.N., red.

[Equipment for the dilatometric investigation of transformations in welded joints] Ustanovki dlia dilatometri-  
cheskogo issledovaniia prevrashchenii v svarnykh soedi-  
nieniakh. Kiev, Naukovadumka, 1964. 35 p.

(MIRA 18:2)

GRABIN, Vladimir Fedorovich; CHERNENKO, N.F., kand. tekhn. nauk,  
otv. red.; GILELAKH, V.I., red.

[Structure and properties of welded joints of titanium al-  
loys] Struktura i svoistva svarnykh soedinenii iz titanovykh  
splavov. Kiev, Naukovadumka, 1964. 104 p. (MIRA 17:12)

ACCESSION NR: AP4013083

S/0125/64/000/002/0054/0058

AUTHOR: Didkovskiy, V. P.; Grabin, V. F.; Gurevich, S. M.

TITLE: Electroslog welding of VT6-alloy forged pieces

SOURCE: Avtomaticheskaya svarka, no. 2, 1964, 54-58

TOPIC TAGS: electroslog welding, welding, VT6 alloy, VT6 alloy forging, VT6 alloy welding, titanium alloy, titanium alloy welding

ABSTRACT: Forged pieces 60 to 100 x 100 to 120mm made from VT6 titanium alloy (4.9%Al, 3.8%V, 0.21%Fe, 0.11%O, 0.11%Si, 0.03%N, 0.06%H, balance Ti) were welded by an A-550 machine under AN-T2 flux-slag in argon atmosphere. Plate electrodes 10-14 mm thick were used. Increasing the plasticity of the weld metal was attempted by (a) subsequent heat treatment of the welds filled with the base VT6 metal was ineffective; hence, VT6

Card 1/2

ACCESSION NR: AP4013083

electrodes can be regarded as acceptable only when these plasticity characteristics are tolerated: relative elongation, 5-6%; reduction of area, 15-20%. Welds of a strength equal to that of the base metal and of adequate plasticity were obtained with AT8 complex alloy and with composite electrodes consisting of VT1-1 and VT6 plates. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: Institut elektrosvariki im. Ye. O. Patona AN Ukr SSR  
(Institute of Electric Welding, AN Ukr SSR)

SUBMITTED: 10Apr63

DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: ML

NO REF SOV: 005 OTHER: 005

Card 2/2

ACCESSION NR: AP4020100

S/0125/64/000/003/0029/0033

AUTHOR: Grabin, V. F. (Candidate of technical sciences); Gurevich, S. M.  
(Doctor of technical sciences)

TITLE: Effect of size of the initial base-metal grain upon the characteristics of  
weld-affected zone of two-phase titanium alloys

SOURCE: Avtomaticheskaya svarka, no. 3, 1964, 29-33

TOPIC TAGS: base metal, welding, electric welding, electric arc welding,  
weld affected zone, VT6 titanium alloy, TiAlV alloy, TiAlV Mn alloy,  
Ti Mn alloy, AN-Tl flux

ABSTRACT: An experimental investigation of the permissible grain size of a Ti  
base which would still ensure a high quality of the weld-affected zone is reported.  
These three alloys were tested:

Alloy	% weight								
	Al	V	Mn	Si	Fe	C	O	N	H
VT6	6,0	4,0	—	0,3	0,15	0,1	0,15	0,05	0,011
1	2,5	9,7	3,3	0,3	0,15	0,1	0,15	0,05	0,012
2	—	—	6,4	0,3	0,15	0,1	0,15	0,05	0,012

Card 1/2

ACCESSION NR: AP4020100

Various sizes of the base metal were obtained by heating the test plates in a vacuum furnace at  $10^{-5}$  torr, 1,000C for 1, 4, and 10 hrs. Butt welds were made at 220-250 amp, 32-34 v across the arc, 47 m/hr speed. Subsequent mechanical tests revealed that with up to 0.026 mm<sup>2</sup> grain size, the strength, toughness, and plasticity practically did not vary; with a greater grain size, however, the strength and plasticity decreased. No brittleness was observed even at -196C. Aging tests showed that the decomposition of the metastable beta-phase occurred more quickly in fine-grained specimens. The effect of grain size upon the hardness was most pronounced after heat treatment. Although the maximum hardness was about the same for different grain sizes, the time of attaining this hardness was longer for a coarser grain. No crack was visible in the weld-affected zone of VT6; the alloy 2 showed transverse cracks whose number grew with the grain size. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Institut elektrosvariki im. Ye. O. Patona AN UkrSSR  
(Institute of Electric Welding, AN UkrSSR)

SUBMITTED: 28Dec62

SUB CODE: ML

DATE ACQ: 31Mar64

NO REF SOV: 002

ENCL: 00

OTHER: 000

Card 2/2

L 8700-65 EWT(m)/EWP(k)/EWP(b) Pf-4 RAEM(t) MJW/JD/HM/WR  
 ACCESSION NR: AP4043203

8/0125/64/000/008/0031/0035

AUTHOR: Yagupol'skaya, L. N.; Grabin, V. F.; Zotova, L. M.

TITLE: Effect of aging at 70C on corrosion resistance of AMg6 alloy welded joints

SOURCE: Avtomaticheskaya sverka, no. 5, 1964, 31-35

TOPIC TAGS: AMg6 alloy, AMg6 alloy weld corrosion, AMg6 alloy weld property, AMg6 alloy intergranular corrosion, AMg6 alloy weld aging, AMg6 alloy corrosion susceptibility

ABSTRACT: The TIG welds of AMg6 alloy have been tested for corrosion behavior in a 3% NaCl + 1% HCl solution after being heat treated under different conditions. The welds either welded or annealed at 150C or 350C were not susceptible to intergranular corrosion. However, subsequent aging at 70C may render the welds susceptible to corrosion. For instance, a weld annealed at 150C for 10 hr. becomes susceptible to corrosion after 52 hr. of aging at 70C. As-welded welds and welds annealed at 350C for 2 hr. develop the susceptibility to intergranular corrosion after 100-hr. aging. Thus welds heat treated at 150C are more susceptible to intergranular corrosion than those in a welded

Card 1/2

L 8700-65

ACCESSION NR: AP4043203

condition for annealed at 150C when operating at 70C. The most extensive corrosion occurs in welds heat treated at 150C and aged for 165 or 597 hr. The void corrosion was found to be associated with  $\delta$ -phase precipitation which begins after 50 hr of aging at 70C. Heat treatment at 150C accelerates the precipitation of  $\delta$ -phase at grain boundaries. Orig. art. has 3 figures.

ASSOCIATION: Institut elektrosvariki im. E. O. Patona AN UkrSSR (Electric Welding Institute AN UkrSSR)

11 Jun 64

AYD 192-11

14 00

84

70 REF 304 10

1442 001



DIDKOVSKIY, V.P.; GRABIN, V.F.; GUREVICH, S.M.

Electric slag welding of VT6 alloy forgings. Avtom. svar. 17 no.2:  
54-58 F '64. (MIRA 17:9)

1. Institut elektrosvariki im. Ye.O. Patona AN UkrSSR.

GRABIN, V.F.; GUREVICH, S.M.

Effect of the initial grain size of the base metal on the properties  
of the weld-affected zone of two-phase titanium alloys. Avtom. svar.  
17 no.3:28-33 Mr '64. (MIRA 17:11)

1. Institut elektrosvarki im. Ye.O. Patona AN UkrSSR.

YAGUPOL'SKAYA, L.N.; GRABIN, V.F.; ZOTOVA, L.M.

Effect of isothermal holding at 70° C on the corrosion  
resistance of welded joints in the AMg6 alloy. Avtom.  
svar. 17 no.8:31-35 Ag '64.

(MIRA 17:11)

1. Institut elektrosvariki imeni Patona AN UkrSSR.

L 41353-05 EPA(s)-2/ENT(m)/EWA(d)/ENP(v)/T/ENP(t)/ENP(k)/ENP(z)/ENP(b)/EWA(c)

PC- (c) NJW/JD/HK

ACCESSION NR AM5004500

BOOK EXPLOITATION

S/

Grabin, Vladimir Fedorovich

34  
B+1

Structure and properties of welded joints of titanium alloys (Struktura i svoystva svarnykh soedineniy iz titanovykh splavov), Kiev, Naukova dumka, 1971, 118 p. illus., biblio. 2,000 copies printed. (At head of title: Nauchno a nauk Ukrainskoy SSR. Institut elektrosvarki im. YE. O. Patona)

TOPIC TAGS: titanium alloy, welding, weldability, electroslog welding, heat treatment titanium alloy VT1/titanium alloy VT5-1/ titanium alloy VT6/titanium

PURPOSE AND COVERAGE: This book describes the properties and application of titanium and its alloys. It gives the basic compositions of alloys used in the USSR and abroad. The book describes the structure and properties of weldments of titanium alloys VT1, VT5-1, VT6, and VT14. The effect of structure and composition of the weld metal and the base metal on the properties of the weldments after welding and heat treatment is shown. The book is intended for engineers, technicians, and researchers concerned with problems of welding.

TABLE OF CONTENTS:

Card 1/2

L 41853-65

ACCESSION NR AM5004500

Introduction -- 3

Ch. I. General characteristics of titanium alloys -- 4

Ch. II. Structure and properties of weldments after welding -- 30

Ch. III. Welding thermal cycle, structure, and properties of the weld  
adjacent zone -- 48

Ch. IV. Structure and properties of weldments after heat treatment -- 63

Structure and properties of weldments in electroslag welding of  
alloy Ti -- 88

Bibliography -- 102

SUBMITTED: 12Sep64

SUB CODE: MM

NO REF SOV: 049

OTHER: 025

Card

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2/2

L 15376-65 EPA(s)-2/EWT(s)/EWP(w)/EWA(1)/EWP(v)/T/EWP(t)/EWP(k)/EWP(-1)/EWP(b)/EWA(o)  
 PF-1/Pad IJP(c) JD/HM/HW

ACCESSION NR: AP5007003

5/0129/65/000/003/0028/0032

AUTHOR: Grabin, V. F.; Malevskiy, Yu. B.

TITLE: Structure and properties of copper-base alloys with cobalt and silicon

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1965, 28-32,  
 and top half of insert facing p. 40

TOPIC TAGS: resistance welding, spot welding, stainless steel, copper alloy

ABSTRACT: The object of the work was to investigate the structure and properties of copper alloys in order to find a material more stable than the existing electrode alloys for resistance welding stainless steel. Electrical conductivity, oxidizability, and hot hardness were measured in Cu-Co, Cu-Si and Cu-Co-Si alloys containing various amounts of Co and Si. The alloys were also subjected to microstructural analysis. It was found that an alloy containing 1.8-2.5% Co and 0.4-0.5% Si was best suited for the preparation of electrodes for spot welding. The optimum treatment of the alloy is quenching from 980°C in water, 50% deformation, and aging for 8 to 10 hr at 450°C. V. G. Vasil'yev and Ye. M. Zotova participated

Card 1/2

L 45376-65

ACCESSION NR: AP5007003

in the work. Orig. art. has: 8 figures, 2 tables.

ASSOCIATION: Institut elektrosvarki AN UkrSSR im. Ye. O. Patona (Institute of Electric Welding)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 003

Card *sh*  
2/2

GRABIN, V.F.; MALEVSKIY, Yu.B.

Structure and properties of copper base alloys with cobalt  
and silicon addition alloys. Metalloved. i term. obr. met.  
no.3:58-32 Mr '65. (MIRA 18:10)

1. Institut elektrosvarki AN UkrSSR im. Ye.O. Patona.



L 54828-65 EWT(d)/EPA(s)-2/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/  
EWP(b)/EWA(c) Pf-4 LJP(c) MJW/JD/HM/EM

ACCESSION NR: AP5015803

UR/0129/65/000/006/0039/0043  
621.791.053:621.78:669.295'292'7-1

AUTHOR: Gurevich, S. M.; Grabin, V. F.

39  
B

TITLE: Heat treatment of welded joints of two-phase titanium alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1965, 39-43, insert facing p. 24, and top half of insert facing p. 25

TOPIC TAGS: welding, titanium alloy, alloy welding, alloy weld, heat treatment, weld heat treatment/OT4 alloy, VT6 alloy

ABSTRACT: The structure and mechanical properties of two-phase titanium-alloy welds heat treated under various conditions have been investigated. Sheets 6-10 mm thick of titanium alloys OT 4, VT6 and No. 1 (Ti-Al-V-Mn system) and No. 2 (Ti-Mn system) experimental alloys were submerged-arc-welded, annealed at 700-950C, quenched, and aged at 200-600C. The optimal combination of strength (120 kg/mm<sup>2</sup>) and satisfactory ductility in VT6 weld was obtained by annealing at 850-900C, quenching, and aging at 500-550C for 10 hr. Alloy OT 4 cannot be strengthened by heat treatment. Welds of the experimental alloys were embrittled by heat treatment owing to the formation of the  $\omega$ -phase. Orig. art. has: 7 figures and 6 tables.

Card 1/2

[RD]

L 54828-65

ACCESSION NR: AP5015803

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 002

ATD PRESS: 4030

Card

*SR*  
2/2

L 40798-66 EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6021000

SOURCE CODE: UR/0125/66/000/006/0010/0015 49

AUTHOR: Grabin, V. F.; Vasil'yev, V. G.; Kushnirenko, A.; Zamkov, V. N.; Gordonnaya, A. A. 48

ORG: Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki im. Ye. O. Patona AN UkrSSR)

TITLE: Kinetics of phase transformations in welded joints of VT15 titanium alloy 18 27

SOURCE: Avtomaticheskaya svarka, no. 6, 1966, 10-15

TOPIC TAGS: titanium alloy, phase composition, metal joining, weld evaluation / VT15 titanium alloy, EG-100A electron diffraction camera

ABSTRACT: The mechanical properties of the welded joints of this alloy are largely determined by the decomposition of  $\beta$ -phase and the properties of the products of its transformation. Hence, the determination of the temperature intervals of formation of these products and of their effect on weld properties is highly important, since it makes possible not only the assessment of the role played by intermediate phases in the embrittlement of weld metal but also the determination of the ways and means of perfecting the welding techniques so as to

1/2

UDC: 621.791:620.181:669.295

L 10798-66

ACC NR: AP6021000

assure welds of improved quality. Accordingly, the authors investigated the kinetics of the  $\beta$ -phase in welded joints (obtained by submerged arc welding) of VT15 alloy under continuous heating. To this end the welded joints were subjected to dilatometric studies (with the aid of a vacuum differential dilatometer); the phase composition was investigated with the aid of an EG-100A electron diffraction camera; and the microstructure, with the aid of optical and electron microscopes. Findings: the presence of the martensite transformation  $\beta \rightarrow \omega$  at 450°C and the possibility of the formation of  $\text{TiCr}_2$  during continuous heating are established. It is further shown that the impact strength and plasticity of these welded joints may be optimized by quenching from 900°C since then the temperature interval of  $\beta \rightarrow \omega$  transformation is lower ( $\sim 200\text{--}350^\circ\text{C}$ ) while the temperature interval of  $\alpha \rightarrow \beta$  transformation is higher (800–840°C). Orig. art. has: 7 figures, 1 table.

SUB CODE: 13,11,20/ SUBM DATE: 19Nov65/ ORIG REF: 007/ OTH REF: 003

Card 2/2

L 43827 66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k) IIP(c) JD/HM

ACC NR: AP6030268

(A)

SOURCE CODE: UR/0125/66/000/008/0018/0021

AUTHOR: Gurevich, S. M.; Grabin, V. F.; Zamkov, V. N.; Kushnirenko, N. A.

ORG: Electric Welding Institute im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Some causes of the low ductility in heat-treated VT-15 alloy welds

SOURCE: Avtomaticheskaya svarka, no. 8, 1966, 18-21

TOPIC TAGS: titanium alloy, titanium alloy welding, titanium alloy weld, weld ductility, alloy weld heat treatment, TiC<sub>1</sub> welding, electron beam welding, submerged arc welding/VT15 titanium alloy

ABSTRACT: The causes of low ductility in VT15 titanium alloy welds annealed and quenched after welding at 800—900C have been investigated. Alloy sheets 3.5 mm thick were joined either by submerged arc welding with ANT-7 flux, TIG welding with or without ANT-15A flux (in both cases without filler wire), or by electron beam welding. It was found that only in welds made with submerged arc did water quenching from 800—900C increase the weld impact toughness and bend angle from 1.1 mkg/cm<sup>2</sup> and 7° in the as-welded condition to 1.5—3.3 mkg/cm<sup>2</sup> and 40—73° after annealing. In all the other welds (which in general had better ductility than submerged-arc welds), annealing and quenching lowered both the notch toughness and bend angle: in TIG welds from 3.85 mkg/cm<sup>2</sup> and 160° to 2.8—3.0 mkg/cm<sup>2</sup> and 135—145°; TIG flux welds

Card 1/2

UDC: 621.791.011:669.295

L 43827-66

ACC NR: AP6030268

from 5.6 mkg/cm<sup>2</sup> and 180° to 3.9—5.0 mkg/cm<sup>2</sup> and 150—160°; and in electron-beam welds from 7.8 mkg/cm<sup>2</sup> and 180° to 5.5—6.0 mkg/cm<sup>2</sup> and 150—165°. The drop of ductility was attributed primarily to the precipitation of TiCr<sub>2</sub> at weld grain boundaries. It was concluded that VT15 welds should be aged without prior annealing. Electron-beam welds aged after annealing had a tensile strength of 114 kg/mm<sup>2</sup>, a notch toughness of 1.6 mkg/cm<sup>2</sup>, and a bend angle of 7—10°. Corresponding figures for welds used without annealing were 123.2 kg/mm<sup>2</sup>, 2.1 mkg/cm<sup>2</sup>, and 20—25°. Orig. art. has: 3 figures and 3 tables. [ND]

SUB CODE: 13/ SUBM DATE: 07Sep65/ ORIG REF: 004/ OTH REF: 005/ ATD PRESS: 5072

Card 2/2 fv



ACC NR: AP6014439



Fig. 1. Metal structure in the seam after isothermal annealing up to 670°C for different time periods (x 250). a - 24 hours; b - 1500 hours, electropolished; c - 1500 hours, etched.

that  $TiCr_2$  is indeed present in welding seams of alloy VT15. To insure high impact strength of the seam, the latter must be quenched from a higher temperature than the base metal. The separation of  $TiCr_2$  along grain boundaries is accompanied by a

Card 2/3



ACC NR: AP6014439

redistribution of the alloying elements--chromium, molybdenum, and aluminum. Orig. <sup>3</sup>  
art. has: 3 tables and 6 graphs. <sub>27</sub> <sub>27</sub> <sub>27</sub>

SUB CODE: 11/ SUBM DATE: 09Mar65/ ORIG REF: 004/ OTH REF: 009  
<sub>13/</sub>

HH  
Card 3/3

GRABIN, V.O.

21(4) PHASE I BOOK EXHIBITION SOV/2583  
International Conference on the Peaceful Uses of Atomic Energy,  
2nd, Geneva, 1958.  
Boklady sovetskikh uchenykh; yadernyye reaktory i yadernaya ener-  
getika. (Reports of Soviet Scientists; Nuclear Reactors and  
Nuclear Power) Moscow, Atomizdat, 1959. 707 p. (Series: It's  
True, vol. 2) Errata slip inserted. 8,000 copies printed.  
General Eds.: M.A. Bollezhai, Corresponding Member, USSR Academy of  
Sciences, A.I. Leipunsky, Doctor of Physical and Mathematical Sciences,  
A.I. Leipunsky, Member, USSR Academy of Sciences, I.I. Bondarenko,  
Korolev, Corresponding Member, USSR Academy of Sciences, and V.S.  
Fursov, Doctor of Physical and Mathematical Sciences; Ed.: A.P.  
Alyab'yev; Tech. Ed.: Ye. I. Maslov.  
PURPOSE: This book is intended for scientists and engineers engaged  
in reactor designing, as well as for professors and students of  
higher technical schools where reactor design is taught.  
COVERAGE: This light series volume of a six-volume collection on the peaceful  
use of atomic energy, the six volumes contain the reports pre-  
sented by Soviet scientists at the Second International Conference  
on Peaceful Uses of Atomic Energy, held from September 1 to 13,  
1958 in Geneva. Volume 2 consists of three parts. The first is  
devoted to atomic power plants and construction in the Soviet  
Union; the second to experimental and construction in the Soviet  
Union; the third, which is predominantly theoretical, contains ex-  
periments carried out on them, and the results of the work of  
theoretical physicists and construction engineers. Problems of  
theoretical physics and construction engineering are treated in  
Berkstein is the chief editor of this volume. See SOV/2581.  
for titles of all volumes of the set. References appear at the  
end of the articles.

PART II. EXPERIMENTAL AND RESEARCH REACTORS

Leipunsky, A.I., V.G. Gubins, M.M. Arakchayev, I.I. Bondarenko,  
O.D. Kuznetsov, O.V. Kuznetsov, V.A. Rabinov, V.S. Fursov,  
and A.A. Stumpp. Experimental Fast Neutron Reactor With  
(Report No. 2297) 215  
Kuznetsov, O.D., V.G. Gubins, I.I. Bondarenko, V.A. Rabinov,  
O.V. Kuznetsov, and A.A. Stumpp. Pilot-plant Reactor With  
Variable and Adjustable UG (Report No. 2302) 232  
Goncharov, V.V. and et al. Some New and Rebuilt Thermal Research  
Reactors (Report No. 2185) 243  
Brokhovitch, B.V., P. A. Zhuravskiy, V.I. Kiselev, P.V. Glazkov,  
and B.A. Zhuravskiy. Dismantling an Experimental Graphite Uranium  
Isotope Producing Reactor After Four Years of Operation (Report  
No. 2297) 319  
Pavlov, S.M., Ye. D. Yozob'yev, V.M. Gryazev, V.B. Klimentov,  
A.Ye. Lavashenko, and V.A. Tsymanov. An Intermediate Reactor  
for Obtaining High Intensity Neutron Fluxes (Report No. 2142) 334

PART III. PHYSICS AND ENGINEERING OF REACTOR DESIGN

Leipunsky, A.I., A.I. Arsenov, V.M. Andreyev, A.I. Baryshnikov,  
Ye. D. Yozob'yev, V.I. Golubev, A.D. Gulyaev, V.I. Kiselev,  
Kuznetsov, O.D., Kuznetsov, O.V., Kuznetsov, V.A., Kuznetsov,  
B.D. Milyutinov, V.M. Morozov, M.M. Arakchayev, O.M. Saifrenkin,  
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(Report No. 2298) 398  
Kuznetsov, O.D., Ye. D. Yozob'yev, V.P. Katkov, I.V. Kamissarov,  
A.I. Leipunsky, V.I. Kiselev, A.M. Korolev, V.S. Fursov, and  
O.D. Kuznetsov. Reactor T. Heveler. Fuel Burn Up in Water-water  
Power Reactors and Experiments With the Uranium Water Lattice  
(Report No. 2145) 411  
Migrenko, V.A. Self-regulation in a Water-water Power Reactor  
(Report No. 2186) 534  
539

L 23480-65 EWT(m)/EWP(t)/EWP(k)/EWP(b) Pf-4 JD

ACCESSION NR: AP5002337

S/0145/64/009/011/0098/0105

14  
B

AUTHOR: Grabin, V.G. (Doctor of technical sciences, Professor); Podurayev, V. N.  
(Candidate of technical sciences); Korotkevich, Yu. N. (Engineer)

TITLE: A blasting installation for investigating ultrahigh speed cutting K

SOURCE: IVUZ. Mashinostroyeniye, no. 11, 1964, 98-105

TOPIC TAGS: metal cutting, high speed cutting, cutting tool design

ABSTRACT: The cutting processes presently in use result in specific cutting pressures exceeding the limiting strength of metals by at least 100%. Besides, the available speeds lower the efficiency when cutting newly designed materials, as well as being very costly. New methods are currently being worked out both in the Soviet Union and abroad, such as ultrahigh speed cutting. By this method, the plastic deformation and the heat evolved per unit length of cutting tool motion are lowered. However, the quantity of heat obtained in a certain time increases greatly, worsening the working conditions of the cutting tool. Above a certain speed, however, the temperature begins to drop, becoming the same as for the previously used cutting process. The quantity heat obtained during cutting depends on the energy used for deformation of the cut layer. The decrease in plastic deformation at very high cutting speeds is caused by concentration of the plastic deformation in minute volumes,

Card 1/8

L 23480-65

ACCESSION NR: AP5002337

as well as by intensive heating of the contact layers leading to lower forces of friction. The energy sources used for ultrahigh speed cutting are explosives, compressed air, powerful sparks, ignited gases, high flux magnetic density, as well as common electric motors. The present authors designed a special blasting tool with a mounted tool holder. Two of them were used, one for testing and one for measuring the cutting force. Cutting speeds were measured before cutting, at the beginning of cutting and during the cutting process within the limits of 200-1200 m/sec. The obtained shaving was smooth when the cutting speed was increased from 400 to 800 m/sec. The cutting installation designed for the tests was very heavy and it will not be used for practical applications. Powder was used as the source of energy instead of the high explosives employed for stamping. Equations showed that the pressure on the metal depends on the gases obtained during powder blasting and on the cutting deformation energy. An empirical factor was derived for the losses caused by radiation, friction and other reasons. The use of powder for mortars results in speeds which are lower than those needed for ultrahigh speed cutting. However, the installation is of simple design and may be used for machining various parts. The solution of several other problems, including the design of cutting tools, cutting speeds, recharging and return of the press to the initial position, will allow it to be used as an automatic machine tool. Orig. art. has: 5 figures and 1 formula.

Card 2/3

BRUSILOVSKIY, Ye.S.; GRABINA, Ye.M.

Role of a nurse in conduction of conditioned reflex therapy. Med. sestra,  
Moskva no.4:18-20 Apr 1953. (CJML 24:5)

1. Candidate Medical Sciences for Brusilovskiy; Senior Nurse for Grabina.
2. South-Western Railroad Hospital, Kiev.

GRABINA, Ye.M.

GEYER, P.L.; GRABINA, Ye.M.

Method of therapy with oxygen in oxygen tent and the role of the  
nurse. Med. sestra, Moskva no.12:13-16 Dec 1953. (GIML 25:5)

1. Departmental Physician for Geyer; Senior Nurse for Grabina. 2. Kiev.

GRABINO, M. G.

PA 20T43

USSR/Metals, Ceramic Sprayed  
Iron - Metallurgy

Aug 1947

"The Durability and Plasticity of Metal-ceramic Iron," I. M. Fedorchenko,  
FV. G. Filimonov, M. G. Grabino, 9 pp

"Vestnik Mashinostroyeniya" Vol XXVII, No 8

Mathematical discussion with formulae and graphs, concluding that the low durability and plasticity of powder metals, in comparison with compact ones, is to be explained by the presence of pores and flaws in the powder metals and their lack of uniformity, which causes a concentration of pressures and premature disintegration in case of stress, etc.

GRABINO, M.G., inzhener; FILIMONOV, V.G., inzhener.

~~SECRET~~  
Iron powder production for metal-ceramic parts. Vest.mash.27 no.11:  
54-60 N '47. (Powder metallurgy) (MIRA 9:4)



GRABINSKI, Andrzej

Clinical analysis of the relationship between the invasion of various parasites of the alimentary tract and bacterial dysentery. Przegl. epidemiol. 19 no.1:57-64 '65

1. Z Ośrodka Badań Klinicznych Państwowego Zakładu Higieny i II Kliniki Chorób Zakaźnych Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. B. Kassur).

10; 10000, 10000

Reproduction of pictures in alimentary intoxications.  
Epidemiol. Inf. 19 no.1:65-68 '65

1. Z. i Kliniki Chorob Zakrzynych Akademii Medycznej w  
Warszawie (Kierownik: prof. dr. med. C. Kassir).

GRABINSKA, Anna; JANOTA-BASSALIK, Ludmila

The isolation and identification of the micro-organisms pathogenic to *Anethum graveolens*. Acta microbiol. polon. 11 no.3:271-276 '62.

1. From the Department of Microbiology, the University, Warszawa.  
(PLANTS) (XANTHOMONAS)

GRABINSKA, KAZIMIERA

..POLAND/Analytical Chemistry - Analysis of Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24822

Author : Pukas Tadeusz, Grabinska Kazimiera

Inst : Silesian Polytechnic

Title : Use of the Hydroxyquinoline Method for Determination of Silica.

Orig Pub : Zesz. nauk. Politechn. slaskiey, 1957, No 12, 93-96

Abstract : Description of a method based on precipitation of the water-insoluble compound of silicomolybdic acid with hydroxy-quinoline (I) and subsequent determination of the excess of I. 0.3 g of comminuted and dried, at 110°, sample are placed in a Ni crucible containing 5 g of fused NaOH. The crucible covered with a lid is heated first for 10 minutes over a low flame of the burner and

Card 1/3

POLAND/Analytical Chemistry - Analysis of Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24822

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000516510004-9

then to a red glow of the bottom of the crucible. The crucible is then allowed to cool and the heating procedure is repeated again 2-3 times. Total duration of the melting operation is of about 30 minutes. The hot crucible is cooled with cold water, there are added to the melt 100 ml of water, the mixture is heated for 10 minutes on a water bath after which 30 ml of concentrated HCl are added. The crucible is rinsed, first with water and then with 2 ml HCl (1:1), washings are combined with the main bulk of the solution and the whole is diluted with water to 500 ml at 20°. To 100 ml of the resulting solution are added 10 ml of 20% solution of  $(\text{NH}_4)_2\text{MoO}_4$ , the mixture is heated for 10 minutes on a water bath at 75°, cooled, 5 ml of HCl (1:1) are added followed by a titrated solution of I (14 g I dissolved in 22 ml HCl, 1:1, and diluted with water to 1 liter) (0.6 ml per each 1% of  $\text{SiO}_2$ ) after which

Card 2/3

/6

POLAND/Analytical Chemistry - Analysis of Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24822

the mixture is heated for 10 minutes on a water bath at 65° cooled, acidified with 5 ml HCl (1:1) and

ANUSZ, Zbigniew; GRABINSKI, Andrzej; NAREBSKI, Jerzy

Types of dysenterial bacilli observed during 1956-1959. Sensitivity of cultivated strains to sulfaguanidine and antibiotics and comparison of results observed in vitro with therapeutic results. Przegl.epidem. 14 no.3:267-272 '60.

1. Z Działu Klinicznego P.Z.H. i II Kliniki Chorob Zakaźnych A.M. w Warszawie Kierownik: prof. dr med. B.Kassur  
(SHIGELLA pharmacol)  
(SULFONAMIDES pharmacol)  
(ANTIBIOTICS pharmacol)

KASSUR, Bertold; NAREBSKI, Jerzy; GRABINSKI, Andrzej

Role of enteric infectious disease clinics in the prevention of  
bacillary dysentery. Przegl.epidem. 14 no.3:307-311 '60.

1. 2 Poradni Zakaznych Schorzen Jelitowych w Warszawie Konsultant  
naukowy: prof. dr med. B.Kassur  
(DYSENTERY BACILLARY prev & control)

GRABINSKI, Andrzej; IWANCZUK, Irena

Incidence of parasites of the alimentary tract in acute bacterial dysentery. Wlad. parazyt. 11 no.3:165-168 '65.

1. Ośrodek Badań Klinicznych Państwowego Zakładu Higieny i Zakład Parazytologii Lekarskiej Państwowego Zakładu Higieny, Warszawa.

GRABINSKI, Andrzej

The most common symptoms and sigmoidoscopic picture in Trichocephalus infections. Wlad. parazyt. 11 no.3:169-173 '65.

1. Poradnia Zakaznych i Pasozytologicznych Schorzen Jelit, Warszawa.



GRABINSKI, J.

Removal of the population from the inundation area of the  
reservoir at Goczalkowice. p. 488. GOSPODARKA WODNA, Warszawa.  
Vol. 15, no. 12, Dec. 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956.

GRABINSKI, J.

Preparatory works for the inundation of the bottom of the water reservoir at Goczalkowice. p. 502. GOSPODARKA WODNA, Warszawa. Vol. 15, no. 12, Dec. 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956.

DUBOWY, F.; GRABINSKI, J.; POLKOWSKA, J.

Sweet clover as feed for cattle; preliminary report. Postępy  
nauk roln 8 no.1:81-83 '61. (EEAI 10:8)

1. Katedra Uprawy Lak i Pastwisk Wysszej Szkoły Rolniczej, Wrocław.  
Kierownik: prof. dr Zygmunt Golonka Katedra Chorob Wewnętrznych  
Wysszej Szkoły Rolniczej, Wrocław. Kierownik: doc. dr Bronisław  
Gancarz.  
(Sweet clover) (Cattle)

GRABINSKI, Kazimierz, inz.

Mistakes in the construction of air ducts. Wiadom gorn 13 no.11:  
386-393 N '62.

GRABINSKI, Kazimierz, inz.; PUKOWIEC, Jerzy, techn

Turnout plate for car exchange at roadheads. Wiadom gorn 14  
no. 7/8:221-224 J1-Ag '63.

BANKA, ~~Marian~~, mgr inz.; DRAGON, Konrad, mgr inz.; GRABINSKI, Kazimierz. inz.

Methane danger control in the 1 Maja mine. Wiadom gorn 14  
no. 11:346-350 N°63.

GRABINSKI, Z.

"Basic Problems of Timber and Lumber Distribution", p. 246, (PRZEMYSŁ DRZEWNY, Vol. 3, #9, September, 1952, Warszawa, Poland

So: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August, 1953  
Uncl.

GRABINSKIY, N.G.

Stability of a centrally compressed thin-walled rod in an  
elastic and elastoplastic field. Sbor. nauch. trud. Dnepr.  
inzh.-stroi. inst. no.31:41-49 '63 (MIRA 18:1)



ENDZELINS, J., akademik; SOKOLS, E., otv. red.; BENDIKS, H., red.;  
DAMBE, V., red.; GRABIS, R., red.; ZUTIS, J., red.;  
OSINS, E., tekhn. red.

[Place names in the Latvian S.S.R.] Latvijas PSR vietvardi.  
Riga, Latvijas PSR Zinatnu akad. izdevnieciba. Pt.1.,  
Vol.2. K - O. 1961. 505 p. (MIRA 15:3)  
(Latvia--Names, Geographical)

GRABIS, Z.; STRZESZEWSKI, W.

Four-shift organization of work in coal mines. p.132.

(PRZEGLAD GORNICZY. Vol. 13, No. 3, Mar. 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

GRABISHEVSKIY, V.V.; GRIGOR'YEV, A.S.

Work organization for accident prevention and labor safety.

Metallurg 9 no.9:36-38 S '64.

(MIRA 17:10)

1. Cherepovetskiy metallurgicheskii zavod.

POLAND/Acoustics - Electroacoustics and Technical Acoustics

J-6

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21329

Author : Grabko Otto

Inst : Not Given

Title : Quality of Sound on Copies of Agfacolor 16 mm Using Color  
Development "With Incomplete Bleaching."

Orig Pub : Techn. kinematogr., 1957, No 9, 20-25

Abstract : No abstract

Card : 1/1

GRABKIN, O.V.

Internal structure and conditions governing the formation of  
the Lower Timpton dome in the Aldan Shield. Vest. Mosk. un.  
Ser 4: Geol. 20 no.1:36-44 Ja-F '65. (MIRA 18:3)

1. Kafedra dinamicheskoy geologii Moskovskogo gosudarstvennogo  
universiteta.

GRABKIN, O.V.

Folding of the Iengra in the central part of the Aldan Shield.  
Vest. Mosk. un. Ser. 4; Geol. 20 no.4:47-54 J1-Ag '65.

(MIRA 18:9)

1. Kafedra dinamicheskoy geologii Moskovskogo universiteta.

MOLCHANOV, I.V., inzh. (Zaporozh'ye); GRABKO, A.G., inzh. (Zaporozh'ye)

Waste water from the production of organosilicon compounds.  
Vod. i san. tekhn. no.8:24-26 Ag '65.

(MIRA 18:12)

BOYARSKAYA, Yu.S.; GRABKO, D.Z.

Effect of some factors on the hardness determined by the  
scratching method. Zav. lab. 31 no.8:1004-1008 '65.

(MIRA 18:9)

1. Institut prikladnoy fiziki AN Moldavskoy SSR.



GRABLEV, A.S.; KOROL'KOV, N.V., kand. tekhn.nauk, otv. red.;  
ORLOVA, I.A., red.; KORKINA, A.I., tekhn. red.

[High-speed ferrite diode elements with a.c. power supply for electronic digital computers] Dystrodelstvuiushchie ferrit-diodnye elementy s pitaniem peremennym tokom dlia TsVM. Moskva, Vychislitel'nyi tsentr AN SSSR, 1963. 63 p.  
(MIRA 17:1)

PETROV, D.F.; GRABLEVA, T.I.

A new auxotrophic strain of *Bacterium coli* requiring only methionine.  
Dokl. AN SSSR 139 no.4:984-986 Ag '61. (MIRA 14:7)

1. Predstavleno akademikom V.N. Shaposhnikovym.  
(*ESCHERICHIA COLI*) (METHIONINE)

21(5,8)

PHASE I BOOK EXPLOITATION

SOV/3370

U.S.S.R. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii.  
Upravleniye po proizvodstvu i ispol'zovaniyu izotopov

Izotopy, istochniki izlucheniya i radioaktivnyye materialy; katalog  
(Isotopes, Sources of Radiation and Radioactive Materials;  
Catalog) Moscow, Atomizdat, 1959. 269 p. Errata slip inserted.  
15,500 copies printed.

Compilers: V. N. Grablevskiy, Ye. Ye. Kulish, N. A. Matyushina,  
G. L. Popova, S. P. Potapov, P. S. Savitskiy, V. N. Terekhova,  
and G. M. Fradkin; Ed.: V. I. Labaznov; Tech. Ed.: N. A.  
Vlasova; Editorial Board: P. S. Savitskiy, (Resp. Ed.), Ye. Ye.  
Kulish, and G. M. Fradkin.

**PURPOSE:** This is a catalog for physicists and technicians in enter-  
prises utilizing radioactive isotopes, their compounds, and radio-  
active sources and equipment.

**COVERAGE:** The catalog contains information on radioactive and  
Card 1/22

Isotopes (Cont.)

SOV/3370

stable isotopes (e.g., half-life periods, preparation reactions, effective activation cross-sections (barns), types of emission, radiation energy (Mev), maximum range of particles (g/cm<sup>2</sup>), etc.). It also provides technical data on radiation sources, research techniques for radioactive isotopes, technical standards accepted by the "Soyuzreaktiv" Trust for irradiating sample materials and parts, abbreviations and terminology, packaging and shipping specifications for isotope raw materials and equipment, ordering procedure and forms, etc. No personalities are mentioned. There are 161 references: 60 Soviet, 85 English and 16 German.

TABLE OF CONTENTS:

PART I. RADIOACTIVE COMPOUNDS

1. Production of Radioactive Isotopes and Tagged Compounds	7
Production of radioactive isotopes by neutron bombardment	7
Production of radioactive isotopes from mixtures of fission products	9

Card 2/22

GRABLIN, Ye.A.; MASLENNIKOV, Ye.A.

Oil- and gas-bearing prospects of Devonian deposits in the zone  
of the Don-Medveditsa dislocations. Geol. nefti 1 no.1:20-24 Ja  
'57. (NERA 10:8)

(Stalingrad Province--Geology, Structural)

GABLIN, Ye. A.

3(5) **PHASE I BOOK EXPLOITATION** **SOV/1827**  
**Vostochnyye naftno-izledovatel'skiy geologorazvednyy naftnyy**  
**institut**

**Geologiya i nefte-gazovyye resursy** **Yuzhno-Vostochnykh rayonov Russkoy**  
**plavnykh shornik stroy (Geology and Oil and Gas Bearing**  
**Plains of the Southeastern Regions of the Russian**  
**1958. 24 p. Errata slip inserted. 1,200 copies printed.**

**Repr. Ed. 1. Ye. A. Buzovskiy. Ed. 2. M. S. Buzovskiy, M. S. Il'inskiy, and**  
**A. A. Zakharenko. Tech. Ed. 1. A. B. Yashchurshinskaya. Executive**  
**Ed. 1. M. V. Salikov.**

**REMARKS:** This book is intended for petroleum exploration geologists,  
 particularly those interested in the Russian platform area.

**CONTENTS:** These articles, originally read at a meeting of the  
 Scientific and Technical Council of Ministry of the Petroleum  
 Industry (1953), discuss the geologic structure of the south-

Card 1/5

eastern parts of the Russian platform, the planning of exploratory  
 and prospecting work, and specific problems in geochemistry.  
 Studies are aimed at realizing the oil and gas potential of the  
 area. Representatives of VNIIGI, VNIIGI, the Stalingradskiy-  
 neftnyy trust, Saratovskiy, Kazakhskiy, and Gruzskiy  
 contributed to the work. No references are given.

**TABLE OF CONTENTS:**

<b>Geology and Oil and Gas Bearing (cont.)</b>	<b>SOV/1827</b>
✓ <b>Buzovskiy, Ye. A. Results of the VNIIGI Explorations in the</b>	101
Western Part of the Prinspiyskaya Depression	
✓ <b>Sokolov, Ye. I. Results of the Permian and Triassic Studies</b>	120
in the Prinspiyskaya Depression	
✓ <b>Buzovskiy, M. Kh. Tectonic Structure of the Northern Part</b>	130
of the Neotektonika and the Western Part of the Stalin-	
gradskaya Oblast	
✓ <b>Grebilin, Ye. A. Results of Studies Made by the Stalingrad-</b>	106
skiy Razvednyy Trust on the Structures Adjacent to the	
Prinspiyskaya Depression	161
✓ <b>Kayser, P. A. The Devonian of the Stalingradskaya Oblast</b>	
✓ <b>Yurlov, G. M. The Lithological and Stratigraphic Charac-</b>	172
teristics of the Carboniferous Sediments of the Stalin-	
gradskaya Oblast and the Prospects of Their Bearing	182
on Oil	
✓ <b>Shchegolev, M. M. Main Features of the Tectonics and</b>	
Biogeography of the Stalingradskaya Povolzh'ye	

Card 2/5

GRABLIŚ, E.

"Work improvements in the milling industry." p. 24. (GOSPODARKA RYBNA,  
Vol. 5, No. 3, Mar. 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 4, April, 1954

GRABLIS, E.

"Lifting belts with buckets and their safety from fire," Gospodarka Zbozowa, Warszawa, Vol 5, No 3, Mar. 1954, p. 12.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.



GRABLIŚ, E.

GRABLIŚ, E. The winners of the rationalizing competition. p. 10.  
Vol. 7, no. 8, Aug. 1956. GOSPODARKA ZROZOWA. Warszawa, Poland.

SOURCE: East European Accessions List (FEAL) Vol. 6, No. 4--April 1957

GRABNAR, S.

~~U S S R~~

Swelling of undamaged and mechanically-damaged fibres of polycaprolactam, and their dyeing with direct dyes. Franjo Kocivar and Stelica Grabnar (*Tekstil*, 1981, 3, No. 4, 259-266).---It was found that swelling of Perlon in phenol and *p*-cresol increases the rate of diffusion and the fixation of direct dyes on the fibre in neutral, acid and alkaline solutions at lower temp. In acid and neutral solutions, a salt is formed between the sulpho-groups of the dyes and the amino- and imino-groups of the polycaprolactam; in alkaline solutions, the direct dyes are absorbed by the hydrogen bonds between the hydroxyl- and amino-groups of the dyes and the carbonyl-groups of the polycaprolactam. For dyeing Perlon, it is advantageous to add 3%  $(\text{NH}_4)_2\text{SO}_4$  and 1%  $\text{H}_2\text{SO}_4$  to the dye-bath. The direct dyeings on Perlon have better fastness to washing than those on cotton; the light-fastness is equal or slightly lower.

I. Text. Inst. (R.B.C.)

241

GRABOS, W.

Automatizing crucible and tank processes in glassmaking. p. 136.  
SZKLO I CERAMIKA, Warszawa, Vol. 6, no. 6, June 1955.

SO: Monthly List of East European Accessions, (ssAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

GRABOS, W.:

Automation of glass tank furnaces (Part II).

By W. Grabos ...

SO: Szkło i Ceramika, #10, 1955, Poland.

AID P - 5247

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 7/9

Author : Grabov, I. N., Eng.

Title : ~~CONFERENCE~~ Conference on welding held in Frankfurt-am-Main  
(Germany) in 1955.

Periodical : Svar. proizv., 8, 27-30, Ag 1956

Abstract : A short review of a few of the reports made at the  
conference, "Welding the heat-resisting steels", "Welding  
in steam-turbine construction", "Converted steels for  
welding", "Spot welding of light metals", with 3 tables  
and 3 graphs.

Institution : None

Submitted : No date

GRABOV, I. N.

AID P - 5590

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 2/12

Authors : Sinadskiy, S. Ye., Kand. of Tech. Sci., and I. N. Grabov, Eng.

Title : Fatigue strength of joints welded by submerged arc and mechanically treated.

Periodical : Svar. proizv., 11, 6-9, N 1956

Abstract : A concise report on the study of fatigue strength of butt-welded and mechanically-treated 90mm thick 22K steel, and a comparison with the comparable characteristics of the base metal. Four tables, 4 drawings, 1 graph, 2 photos (1 microstructure).

Institution : Central Scientific Research Institute of Machine-Building Technology (TsNIITMASH).

Submitted : No date

AUTHOR: Grabov, I.N., Engineer 135-58-7-18/20

TITLE: On the Revision of "GOST 2246-54" Standard for Steel Welding Rods (K peresmotru GOSTa 2246-54 na stal'nyu svarochnuyu provoloku)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 7, pp 42-43 (USSR)

ABSTRACT: The Welding Section of TsNIITMASH performed a survey on over 100 enterprises, institutions and scientific research institutes relating to the revision of the "GOST 2246-54" standard on steel electrodes. Suggestions and recommendations on this subject are presented.

ASSOCIATION: TsNIITMASH

1. Welding electrodes--Standards 2. Steel electrodes--Standards

Card 1/1

GRABOV, I.N.

Steel welding wire. Standartizatsiia 24 no.4:31-32 Ap '60.

(MIRA 13:9)

(Wire--Standards)



GRABOV, I.N., inzh.

New state standard no. 2246-60 for steel welding rods. Svar.proizv.  
no.6:41-42 Je '60. (MIRA 13:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i  
mashinostroyeniya.

(Welding rods--Standards)

GRABOV, Isaak Naumovich; AKKERMAN, D.A., red.; BARANOV, A.M., red.;  
BOGOMOLOV, B.A., red.; GUSEV, N.P., red.; MURONETS, I.I.,  
red.; POGREBNAYA, L.L., red.; KRYUCHKOVA, V.N., tekhn. red.

[German-Russian dictionary on welding] Nemetsko-russkii slovar'  
po svarke. Moskva, Glav.red.inostr. nauchno-tekhn.slovarei  
Fizmatgiza, 1962. 246 p. (MIRA 15:7)

(German language--Dictionaries--Russian)  
(Welding--Dictionaries)

GRABOV, I.N., inzh.

Allowable aluminum content in the steel of Sv-08 and Sv-08A welding wire. Svar. proizv. no.8:12-14 Ag '62. (MIRA 15:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.

(Electrodes—Standards)  
(Steel-aluminum alloys—Analysis)

GRABOV, I.N., inzh.

Answer to L.S. Sapiro on his remarks about I.N. Grabov's  
article "Acceptable aluminum content in the Sv-08 and  
Sv-08A welding wire steel." Svar. proizv. no.11:39 N'63.  
(MIRA 17:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut  
tekhnologii i mashinostroyeniya.

GRABOV L.

KHREKIN, A.; GRABOV, L. OHEL'NITSKIY, Yu.

Reducing wastes in the cutting department. Prom.koop.no.7:33-35  
Jl'55. (MIRA 8:11)

1. Predsedatel' pravleniya arteli "Promkhudozhnik" (for Khrekin)  
(Clothing industry)

ACC NR: AR6033792

SOURCE CODE: UR/0058/66/000/007/E103/E103

AUTHOR: Glukhova, T. I.; Grabov, V. M.; Ivanov, G. A.; Popov, A. M.

TITLE: Electrical properties of quasi-binary alloys (Bi-Sb)-Te

SOURCE: Ref. zh. Fizika, Abs. 7E773

REF SOURCE: Uch. zap. Leningr. gos. ped. in-ta im. A. I. Gertsena, v. 265, 1965, 234-241

TOPIC TAGS: Hall effect, thermoelectromotive force, bismuth alloy, antimony alloy, tellurium alloy, temperature dependence, quasibinary alloy, binary alloy, conduction band

ABSTRACT: On the basis of investigation of the Hall effect, the specific resistance ( $\rho$ ) and the thermoelectromotive force, a study is made of the structure of the conduction band in single and polycrystalline alloys (Bi-Sb)-Te, containing 3, 6, 8, 10, 15, and 20 at % of Sb, and 0.1, 0.2, and 0.3 at % of Te. It is found that the addition of T lowers  $\rho$ , while the addition of Sb raises it in comparison with the  $\rho$  of initial Bi-Sb alloys. The values of effective electron masses found ( $m^*$ ) correspond to the values  $m^*$  in the initial alloys. Depending on the concentra-

Card 1/2

ACC NR: AR6033792

tion of Sb at 300K, the character of the  $m^*$  changes is in accord with the data of Smith [RZhFiz., 1963, 7E617], obtained at 1.3K, which indicates a low temperature dependence of  $m^*$  of the alloys investigated. [Translation of abstract] [GC]

SUB CODE: 20,11/

Card 2/2

ACC NR: 00420-01 EWT(m)/EWP(t)/ETI LIP(c) ID  
AP6026703 SOURCE CODE: UR/0181/66/008/008/2460/2461

AUTHOR: Grabov, V. M.; Ivanov, G. A.

ORG: Leningrad State Pedagogical Institute im. A. I. Gertsen (Leningradskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Behavior of differential thermal emf in bismuth alloys

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2460-2461

TOPIC TAGS: bismuth alloy, tin alloy, thermal emf

ABSTRACT: The temperature dependence of the differential thermal emf  $\alpha_{11}$  and  $\alpha_{33}$  of Bi-Sn alloys containing various amounts of tin was studied (Fig. 1). As the temperature drops, the sign of the differential thermal emf of the alloy with 0.2 at. % Sn changes from negative to positive, but the anisotropy of the thermal emf remains considerable. This indicates current carriers belonging to several nonequivalent groups participate in the transfer phenomena. In all of the Bi-Sn alloys containing up to 1.0 at. % Sn, the nature of the temperature dependence of  $\alpha_{33}$  remains the same. As the Sn content increases, the point at which the sign of  $\alpha_{33}$  changes shifts toward higher temperatures. In the alloy with 0.4 at. % Sn, the thermal emf  $\alpha_{11}$  becomes negative at low temperatures. In alloys with a high Sn content,  $\alpha_{11}$  is negative in the entire 80-300°K range. This fact and the strong anisotropy of the thermal emf in all the Bi-Sn alloys indicate that not only holes, but also electrons participate in the

Card 1/2

Card 2/2



GRABOVA, F. N.

3580

~~SMOS~~

Relapses after streptomycin treatment of tb meningitis Probl. Tuberk. 1951, 3 (11-18)  
In the course of 3 yr., 34 relapses (11 fatal) have been observed in the 195 survivors  
of 315 children aged 1-15 yr. The relapses were not correlated to the initial form of  
meningitis. Most of them occurred in the first 6 months. Tb bacilli were found in 2/3  
of the relapse cases. More than half the patients with relapses had pulmonary tb lesions  
of various types, the infiltrative types giving a better prognosis than the military. The  
cure of a tb meningitis does not by any means necessarily imply the healing of tb lesions  
elsewhere in the organism. Treatment of a relapse must be no less energetic than that of  
the original meningitis.

Todorovic - Belgrade (XX, 15, 7, 8)

So: Excerpta Medica, Section VIII, Vol. 5, No.9, September 1952

FUTER, D.S.; PROKHOROVICH, Ye.V.; SHAPIRO, G.B.; GRABOVA, F.N.

Urgent problems in the treatment of tuberculous meningitis. Vop.  
okh.mat. i det. 4 no.6:3-7 M-D '59. (MIRA 13:4)

1. Iz Gosudarstvennogo pediatricheskogo instituta Ministerstva  
zdoravookhraneniya RSFSR i detskoy gorodskoy klinicheskoy bol'nitsy  
No.1 (Moskva).

(MENINGES--TUBERCULOSIS)

FUTER, David Solomonovich; PROKHOROVICH, Yermolay Vasil'yevich; Prinsipal  
uchastnye: SHAPIRO, T.B.; NAZAROVA, E.M.; GRABOVA, F.N.; MARTINSON, A.S.,  
red.; PETROVA, N.K., tekhn.red.; PRONINA, N.D., tekhn.red.

[Tubercular meningitis in children] Tuberkuleznyy meningit u  
detei. Pri uchastii T.B.Shapiro, E.M.Nazarova i F.N.Grabovoi.  
Moskva, Medgiz, 1963. 278 p. (MIRA 16:3)  
(MENINGITIS)

ГРАФОВА, Y. I.:

ГРАФОВА, Ye. I.: "A study of the concentration-polarization in electro-chemical dissolution and isolation of metals by the refractographic method." Min Higher Education USSR. Moscow Order of Lenin Chemico-technological Inst imeni D. I. Mendeleev. Moscow, 1956. (Dissertation For the Degree of Candidate in Chemical Science.)

Knizhnaya letopis'  
No 32, 1956. Moscow.

GRABOVA, YE. I.

Category: USSR/Physical Chemistry--Solutions. Theory of acids and B-11 bases.

Abs Jour: Referat Zhur--Khimiya, No 3, 1957, 7639

Author : Gorbachev, S. V. and Grabova, Ye. I.

Inst : ~~Not given~~ D. I. MENDELEYEVA Chem-Tech Inst., Moscow.

Title : A refractometric Method for the Investigation of Diffusion Processes and Its Application to the Study of Diffusive Solution

Orig Pub: Zh. Fiz. Khimii, 1956, Vol 30, No 6, 1228-1237 (English summary)

Abstract: A new refractometric method is proposed for the investigation of diffusion processes. The method makes it possible to determine the distribution of the diffusing substance in a liquid layer up to 10 cm thick; using the index of refraction. The main element of the apparatus is a cuvette, one of the walls of which forms a side of a completely reflecting prism. The accuracy of the determination is  $\sim 10^{-4}$ . The method offers the advantage of studying diffu-

Card : 1/2

-1-

Category: APPROVED FOR RELEASE: 03/13/2001 USSR/Physical Chemistry--Solutions. Theory of acids and B-11 bases. CIA-RDP86-00513R000516510004-9

Abs Jour: Referat Zhur--Khimiya, No 3, 1957, 7639

sion processes over a wide range of concentrations. The method has been applied to the investigation of the kinetics of the solution of  $\text{CuSO}_4$  in  $\text{H}_2\text{O}$ . A comparison has been made of the experimental data with a theoretical calculation of the diffusion of the solute particles without taking into account convection. The theoretical results can be brought into good agreement with experimental data by the use of averaged refraction coefficients.

Card : 2/2

-2-

GRABOVA, Ye.I.

Refractive index of electrolytes in the electrolysis of  $\text{Cr}^{3+}$  and  $\text{Fe}^{3+}$  in the presence of some addition agents. Zhur.fiz.khim. 30 no.6:1241-1245 Je'62 (MIRA 17e7)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni Mendeleeva.

GRABOVA, Ye.I.

Distribution of the electrolyte in solution during electrolysis  
of copper sulfate. Zhur. fiz. khim. 38 no.9:2134-2138 S '64.  
(MIRA 17:12)

1. Tekhnicheskiiy institut rybnoy promyshlennosti i khozyaystva,  
Kaliningrad.

GRABOVA, Ye.I.

Refractographic study of the concentration distribution of zinc sulfate near the electrodes during electrolysis. Zhur.fiz.khim. 38 no.11:2652-2655 N '64. (MIRA 18:2)

1. Kaliningradskiy tekhnicheskii institut.



GRABOVAC, Ivo

Meaning of the clause on the nonliability of shipmasters for  
the negative consequences of seat damage. Medun transp 8  
no.8:546-547 Ag '62.

GRABOVAC, Ivo

Analysis of the clause granting the ship the right to call  
at a port for bunkers. Medun transp 9 no.10:657-658 0'63.

GRABOVAC, I.

Some problems of the development of cosmic right. Medun transp 10  
no. 6:446-448 Je '64.

GRABOVA, Ye. I.

Mass-transfer coefficient in the electrolysis of aqueous solutions of  $\text{CuSO}_4$  and  $\text{ZnSO}_4$  calculated from the refractographic method data. *Izv. vys. ucheb. zav.; khim. i khim. tekh.* 5 no.5:743-748 '62. (MIRA 16:1)

1. Kaliningradskiy tekhnicheskoy institut rybnoy promyshlennosti i khozyaystva, kafedra fizicheskoy, kolloidnoy i analiticheskoy khimii.

(Sulfates) (Electrolysis) (Diffusion)

GRABOVAC, I.

Responsibility of the carrier for failure to give due. care,  
and for insufficient remarks in the bill of lading. Madun  
transp 10 no.11:23 N '64.

GRABOVENKO, E.K.; SBITNEVA, M.F. (Moskva)

Therapeutic effect of strychnine in acute radiation sickness in  
rats and mice. Pat.fiziol. i eksp.terap. 3 no.1:71 Ja-P '59.  
(MIRA 12:2)

1. Nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof.  
P.D. Gorizontov.

(STRYCHNINE)  
(RADIATION SICKNESS)

BELOUSOVA, O.I.; GRABOVENKO, E.I.

Use of vitamin B<sub>12</sub> and B<sub>6</sub> under repeated x irradiation. Med. rad. 4  
no.10:41-46 0 '59. (MIRA 13:2)

(RADIATION INJURY exper.)  
(VITAMIN B<sub>6</sub> pharmacol.)  
(VITAMIN B<sub>12</sub> pharmacol.)

ACCESSION NR: AT4014053

8/3073/63/000/000/0248/0255

AUTHOR: Grabovetskiy, A. P.

TITLE: Effect of electrochemical coatings on the fatigue strength of steel

SOURCE: Prochnost' metallov pri peremennykh nagruzskakh; materialy\* tret'yego soveshchaniya po ustalosti metallov, 1962 g. Moscow, Izd-vo AN SSSR, 1963, 248-255

TOPIC TAGS: electrochemical coating, plating, steel fatigue, steel, electroplating, chromium coating

ABSTRACT: It has been shown that the fatigue strength of normalized steel is markedly decreased by coatings of Cr, Zn, or Pb, when the usual electrochemical methods are used. In the present paper, two new methods of electrochemical coating with Cr were worked out that reduce or prevent the drop in fatigue strength. The first method consists of impressing sufficient tensile deformation on the basic metal to compensate for the final tensile stresses induced by the re-crystallization of the Cr-coating. By this method, the drop in fatigue strength of Cr-coated steel is reduced to half that with the normal method of Cr coating.

Card 1/2

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000516510004-9

ACCESSION NR: AT4014053

The second method consists of primary coating of the basic metal with a buffer layer of copper cyanide, using alternating current, followed by electrochemical Cr-coating to the desired thickness by direct current. The second method prevents the drop in fatigue strength as compared with the uncoated metal almost completely. Conditions of performance of both methods are discussed. Orig. art. has: 4 tables and 9 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 000

Card 2/2



ACCESSION NR: AP4042348

S/0129/64/000/007/0056/0057

AUTHOR: Grabovetskiy, A. P.

TITLE: Improving the fatigue strength of chromium plated steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1964, 56-57

TOPIC TAGS: steel No. 35, chromium plated steel, plated steel fatigue strength, copper cyanide precoating, chromium plating, fatigue

ABSTRACT: Samples of steel No. 35 were precoated with copper cyanide (layer thickness 0.01 mm, AC, current density  $2.5 \text{ a/dm}^2$ , cathode period 10 sec., anode period 1 sec., electrolyte temperature  $50^\circ\text{C}$ ), and then chromium plated (layer thickness 0.14 mm, DC,  $55 \text{ a/dm}^2$ ,  $50^\circ\text{C}$ ). A control group was chromium plated (0.15mm) only. Samples were then tested for fatigue strength ( $10^6$  cycles, simple circular bending) on an MU 1-6000 unit. The results shown in the Enclosure indicate fatigue limits of  $25 \text{ kg/mm}^2$  for unplated and copper cyanide precoated samples, and  $22 \text{ kg/mm}^2$  for chromium plated samples without precoating. Orig. art. has: 1 graph and 1 formula.

Card 1/3

ACCESSION NR: AP4042348

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 003

OTHER: 000

Card 2/3

ACCESSION NR: AP4042348

ENCLOSURE: 01

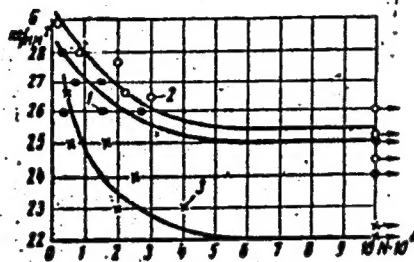


Fig. 1. Fatigue curves of samples: 1 - without plating; 2 - chromium plated on a copper undercoat; 3 - chromium plated without precoat. Ordinate = stress in kg/mm<sup>2</sup>; abscissa = # of cycles.

Card 3/3

GRABOVETSKIY, A.P.

Increasing the fatigue strength of chromium-plated steel. Metalloved.  
1 term. obr. met. no.7:56-57 J1 '64. (MIRA 17:11)